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AUTHOR Henschen, Keith P.; And Others
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ABSTRACT

The relationship between level of achievement motivation and sex role orientation was measured in 67 female high school track and field athletes and in 67 female high school nonathletes. The hypothesis for the study was that there would be no significant difference between athletes and nonathletes on measures of achievement motivation, masculine sex role traits, sex role androgyny, and feminine sex role traits. Two standardized instruments were administered: the Bem Sex Role Inventory and the Mehrabian Scale of Achieving Tendency. After statistical analyses, the subjects' sex orientation was classified as masculine, feminine, androgynous, or undifferentiated. Further analyses showed that significant differences in motivation existed between athletes and nonathletes and that achievement motivation was the only discriminating factor between athletes and nonathletes. High levels of achievement motivation were related to masculine and androgynous sex role orientation. The undifferentiated classification was significantly lower in achievement motivation than in any other sex role classification. (FG)

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ACHIEVEMENT MOTIVATION AND SEX ROLE ORIENTATION OF HIGH SCHOOL FEMALE TRACK AND FIELD ATHLETES VS. NONATHLETES. Keith Henschen, University of Utah; Steven Edwards, University of Utah; Linda Mathinos, University of Utah.

The purpose of this study was to investigate the differences between female high school track and field athletes and nonathletes in regards to level of achievement motivation and sex role orientation. One hundred and thirty-four randomly selected high school female athletes (N = 67) and nonathletes (N = 67) were measured for achievement motivation (Mehrabian Scale of Achieving Tendency) and sex role orientation (Bem Sex Role Inventory).

Differences in achievement motivation between the athletes versus the nonathletes and among the four groups representing sex role orientations were revealed by a 2 X 4 analysis of variance ($p > .05$). Relationships among the dependent variables, namely, achievement motivation and the feminine, masculine, undifferentiated and androgynous scales of the BSRI, were calculated using the Pearson-Product Moment Correlation Coefficient for the athletes and nonathletes separately as well as the total group. A discriminant analysis was conducted in order to determine if achievement motivation and the feminine and masculine BSRI scores could significantly discriminate between athletes and nonathletes.

From the data analyzation it was determined that female athletes exhibited significantly higher levels of achievement motivation than did their nonathletic counterparts. Also, results indicated that a significant relationship exists between sex role orientations and achievement motivation. High levels of achievement motivation are related to androgynous and masculine sex roles; while low levels of achievement motivation are associated with feminine and undifferentiated sex role orientations.

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Achievement Motivation and Sex Role Orientation of High School Females

Introduction

Man has been, and will continue to be, fascinated with the origins of his actions and behaviors and with their subsequent regulation. One arena which receives considerable attention, as to the reasons or motivations behind participation, is that of competitive sport. Just what are the reasons for a young woman to decide to pursue a career in athletic performance? Are there certain psychological traits which predispose or at least contribute, even minutely, to a girls decision to play sports? These questions, and many others, have plagued researchers and educators in recent times.

In dealing with females, it is a readily apparent fact that the cultural role development does not lend itself to the expression of the achievement motive. Due to sex role orientations, most females do not develop the autonomous achievement motive that is internalized and usually characteristic of men. They do, however, develop a social comparison achievement motive, whereby success is determined by social standards. Their achievement is often expressed through activities that are appropriate with their sex role orientation (Bardwick, 1971).

One factor that contributes to the determination of the female's athletic experience is her sex role orientation. The traditional approach in dealing with sex role orientation has been bipolar, with male characteristics on one end of the continuum and female traits on the other end. This approach has led to the notion that individuals cannot possess characteristics attributed to the opposite sex. Males are described as objective, analytical, independent, competitive, and instrumental. Females have been defined as emotional, passive, dependent, non-competitive and illogical (Polk, 1974). Recent developments in personality theory have inclined some psychologists to redefine sex roles which

normal people should be expected to possess (Knoppers, 1980). Bursting into this area of thought is the concept of androgynous individuals; that is, the person who possesses and demonstrates both male and female sex role attributes (Bem, 1974, 1976; Spence Helmaeich, 1978). By accepting the androgyny concept, psychologists have created a new sex role orientation that is more flexible and adaptable to changes in the environment. Bem (1975) expressed the idea that the traditional concepts of masculinity and femininity act as a restraint to females expecially in our complex society where they must assume a number of roles in order to be successful. Bem also stated:

> "Androgyny, in contrast, allows an individual to be both independent and tender, assertive and yielding, masculine and feminine. Thus androgyny greatly expands the range of behavior open to everyone, permitting people to cope more effectively with diverse situation." (Bem 1975, p. 95).

There is little research completed that has described the achievement or sex role characterisitics of the female athlete. Research completed utilizing the female athlete and achievement motivation has been conducted by Yeary (1971) who reported no conclusive results as to the relationship of achievement motivation and anxiety levels. However, Stein and Baily (1973) reported that some females in achievement situations may adjust their concepts of femininity to include indentification with a more masculine role. These authors also suggested that creative and intelligent females may have included in their self-perceptions attributes of both roles. Several investigators have attempted to study sex roles of those involved in sport (Duquin, 1978; Spence and Helmreich, 1978; and Myers and Lyss, 1978). Finally, Gilmore (1975) in a study of 18 to 50 year old women, concluded that need achievement levels were significantly related to sex role orientation in women below 20 years of age. Of course, further research in this area was strongly suggested.

Statement of Problem

The purpose of this study was to investigate the relationships and differences between levels of achievement and sex role orientations of female high school track and field athletes and nonathletes. It was hypothesized that there would be no significant difference (P less than .05) between athletes and nonathletes on measures of achievement motivation, masculine sex role traits, sex role androgyny, and feminine sex role traits. Relationships between sex role orientations and achievement motivation were also examined.

Methodology

One hundred and thirty-four randomly selected high school female athletes and nonathletes from surrounding school districts in Salt Lake City, Utah were utilized as subjects for this investigation. Sixty-seven of the subjects were female track and field athletes while sixty-seven were nonathletes. The subjects were administerd two standardized instruments - the Bem Sex Role Inventory (BSRI) which assesses sex role orientation and the Mehrabian Scale of Achieving Tendency (Mehrabian, 1968, 1969) which was used to assess achievement motivation. Approval was recieved to conduct this study from the School Boards involved and the University of Utah Human Subject Committee.

Results

The data generated were statistically analyzed via a number of complex designs. According to the scores attained on the Bem scale, the subjects (athletes and nonathletes) were categorized into the following groups: Masculine, feminine, androgynous, and undifferentiated. Table I illustrates the numerical breakdown of subjects.

Table I

Subject Classification According to Bem Scale Scores

Classification	Athletes	Nonathletes	Total
Masculine	N=12	N=12	N=24
Feminine	N=16	N=14	N=30
Androgynous	N=29	N=20	N=49
Undifferentiated	N=10	N=21	N=31
Totals	N=67	N=67	N=134

After the subjects were classified as to sex role orientation according to Bem Scale scores, a two way analysis of variance for achievement motivation was conducted. The data were analyzed according to Groups (athlete vs nonathlete) and Sex Role Orientation (masculine, feminine, androgynous, and undifferentiated). Table II reveals the results of this analyzation.

Table II

Analysis of Variance for Achievement Motivation

Source	SS	df	MS	F
(G) Group (Athlete vs Nonathlete)	15280.5	1	15280.5	15.99*
(S) Sex Role Orientation	41828.6	3	13942.9	14.59*
G X S	3363.9	3	1121.3	1.17
Error	120413.7	126	955.7	——
Total	180886.7	133	31300.4	

*Significant at .05

The analysis of variance results indicate that the groups (athletes and nonathletes) were significantly different as to achievement motivation; and also that the sex role orientation classifications demonstrated significant

differences. No interaction significance was located between the groups and sex role orientation classifications. By examining the means of the groups: athletes $\bar{x}$ = 88.57 and nonathletes $\bar{x}$ = 59.97, it is readily apparant that the athletes have a significantly greater achievement motivation than do the non-athletes.

In order to determine which sex role orientation classifications were significantly different from each other, the Newman-Keuls test was administered. Results indicated that the undifferentiated classification ($\bar{x}$ = 42.45) was significantly lower in achievement motivation than all other sex role orientation classifications. The feminine classification ($\bar{x}$ = 67.63) was significantly greater in achievement motivation than the undifferentiated subjects but also significantly lower than either the masculine or the androgynous classifications. The masculine classification ($\bar{x}$ = 83.04) and the androgynous subjects ($\bar{x}$ = 94.16) were not significantly different from each other. Table III reveals the Newman-Keuls analyzation results.

Table III

Newman-Keuls Results for Achievement Motivation

Classification	$\bar{X}$	Significantly Different From
Undifferentiated (UND)	42.45	FEM, MAS, AND
Feminine (FEM)	67.63	UND, MAS, AND
Masculine (MAS)	83.04	FEM, MAS
Androgynous (AND)	94.16	FEM, MAS

In addition to the ANOVA analyzation, the data were further evaluated by use of a discriminant Function Analysis. The results indicated that only a achievement motivation could discriminate between athletes and nonathletes. No combinations of sex role classifications and achievement motivation evidenced a significant contribution to the difference between athletes and nonathletes.

The final statistical analysis involved the use of the Pearson-Product Moment Correlation to determine the relationships between the variables investigated in this study. Table IV illustrates the relationships between variables.

Table IV

Correlations Among Variables

	Total	Athlete	Non-Athlete
BEM MAS / BEM FEM	.43	NS	.48
BEM MAS / BEM AND	-.64	-.82	-.55
BEM FEM / BEM AND	.42	.42	.47
ACH MOT / BEM MAS	.61	.60	.56
ACH MOT / BEM FEM	.35	.32	.32
ACH MOT / BEM AND	-.32	-.36	-.26

These correlations indicate that achievement motivation is significantly related to all four sex role classifications; but highly related to the masculine and androgynous classifications.

Discussion

Achievement motivation and sex role orientations are important variables to consider in analyzing the behavior of individuals.The purpose of this study was to determine descriptive characteristics of high school female athletes and non-athletes on measures of achievement motivation and sex role orientation. Upon analyzing the data, it became apparent that female high school track and field athletes differed significantly from nonathletes on achievement motivation. The female athletes demonstrated significantly higher levels of achievement motivation.

Also, the female athletes and nonathletes were similar in their sex role orientations.

Another interesting finding was that the female athletes exhibited higher levels of achievement motivation than did their nonathletic counterparts. This indicates that even as early as the high school level achievement motivation is a factor which can differentiate between those inclined towards athletics andthose not so inclined.

Possibly the most interesting finding of this research project was that there exists a significant relationship between sex role orientations and achievement motivation. High levels of achievement motivation are related to androgynous and masculine sex roles; while low levels of achievement motivation are associate with feminine and undifferentiated sex role orientations.

References

Bardwick, J. Psychology of Women: A Study of bio-cultural conflicts. New York: Harper and Row Rublishers, 1971

Bem, S. The measurement of psychological androgyny. Journal of Consulting and Clinical Psychology, 1974, 42, 155-162.

Bem, S. Beyond androgymy: Some presumptions prescriptions for a liberated sexual identity. Keynote address, American Psychological Association, National Institute of Mental Health Conference, 1975.

Bem, S. Probing the promise of androgyny. In A. Kaplan, & J. Bean (Eds.), Beyound Sex role stereotypes: Readings toward a psychology of androgyny. Boston: Little, Brown, and Company, 1976.

Duquin, M. The androgynous advantage. In C. Oglesby (Ed.), Women and Sport: From Myth to reality. Philadelphia: Lea O. Febiger, 1978.

Gilmore, B. To achieve or not to achieve - the question of women. Louisville, Kentucky: Annual Meeting of Gerontological Society, 1975.

Knoppers, A. Androgyny: Another Look. Quest, 1980, 32(2), 184-191.

Mehrabian, A. Male and female scales of the tendency of achieve. Educational and Psychological Measurement, 1968, 28, 493-502.

Mehrabian, A. Measures of achieving tendency. Educational and Psychological Measurement, 1969, 29, 445-451.

Meyers, A. and Lyss, H. Participation in competitive amateur sports as a function of psychological androgyny. Sex Roles, 1978, 4, 571-578.

Polk, B. Male power and the women's movement. Journal of Applied Behavioral Science, 1974, 10, 415-431.

Science, J. and Helmreich, R. Masculinity and feminity: Their psychological demensions, correlates and antecedents. Austin: University of Texas Press, 1978.

Stein, A. and Bailey, M. The socialization of achievement orientation on females. Psychological Bulletin, 1973, 80, 345-366.

Yeary, S. A comparison of achievement motivation and anxiety level in college women athletes in selected sports. Master's thesis, University of Massachusetts, 1971.